

2. AMENDMENTS TO THE CLAIMS (LISTING OF CLAIMS):

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) An adeno-associated viral vector comprising at least a first polynucleotide that comprises a promoter operably positioned upstream of an isolated nucleic acid segment encoding a biologically-active ~~therapeutic~~ mammalian ~~cytokine~~interleukin polypeptide selected from the group consisting of IL-10 and IL-10(I87A), wherein said promoter expresses said nucleic acid segment in a mammalian pancreatic islet cell that comprises said vector to produce said encoded mammalian ~~cytokine~~interleukin polypeptide.
- 2.-9. (Canceled)
10. (Currently Amended) The adeno-associated viral vector of claim 1, wherein said promoter is a ~~mammalian~~chicken β -actin promoter.
11. (Original) The adeno-associated viral vector of claim 1, wherein said vector further comprises at least a first enhancer sequence selected from the group consisting of a CMV enhancer, a synthetic enhancer, a liver-specific enhancer, a lung-specific enhancer, a

muscle-specific enhancer, a kidney-specific enhancer, a pancreas-specific enhancer, and an islet cell-specific enhancer, operably linked to said nucleic acid segment.

12. (Canceled)
13. (Original) The adeno-associated viral vector of claim 1, wherein said vector further comprises a post-transcriptional regulatory sequence.
14. (Original) The adeno-associated viral vector of claim 13, wherein said regulatory sequence comprises a woodchuck hepatitis virus post-transcription regulatory element.
- 15.-16. (Canceled)
17. (Original) A recombinant adeno-associated virus virion comprising the vector of claim 1.
18. (Canceled)
19. (Currently Amended) A plurality of the recombinant adeno-associated virus virions ~~viral particles comprising the vector~~ of claim 17.

20. (Currently Amended) An isolated mammalian host cell comprising: (a) the adeno-associated viral vector of claim 1, or (b) the recombinant adeno-associated virus virion of claim 17.

21.-23. (Canceled)

24. (Currently Amended) A composition comprising: (a) the adeno-associated viral vector of claim 1; (b) the recombinant adeno-associated virus virion of claim 17; (c) the plurality of recombinant adeno-associated viral particles of claim 19; or (d) the isolated mammalian host cell of claim 20.

25.-31. (Canceled)

32. (Currently Amended) A kit comprising:

(a) the adeno-associated viral vector of claim 1, the recombinant adeno-associated virus virion of claim 17, the plurality of recombinant adeno-associated viral virions of claim 19, the isolated mammalian host cell of claim 20, or the composition of claim 24; and

(b) instructions for using said kit.

33. (Withdrawn) A method for preventing, treating or ameliorating the symptoms of a disease, dysfunction, or deficiency in a mammal, said method comprising administering to said mammal the virion of claim 17, or the viral particles of claim 19 in an amount and for a time sufficient to treat or ameliorate the symptoms of said disease, dysfunction, or deficiency in said mammal.
34. (Withdrawn) The method of claim 33, wherein said mammal is a human.
35. (Withdrawn) The method of claim 34, wherein said mammal has, is diagnosed with, or is at risk for developing, diabetes or an autoimmune disorder.
36. (Withdrawn) The method of claim 33, wherein said virion or said plurality of viral particles is administered to said mammal intramuscularly, intravenously, subcutaneously, intrathecally, intraperitoneally, or by direct injection into an organ or a tissue.
37. (Withdrawn) The method of claim 36, wherein said organ or tissue is selected from the group consisting of pancreas, liver, heart, lung, brain, kidney, joint, and muscle.
38. (Withdrawn) A method for treating diabetes in a mammal suspected of having, or at risk for developing diabetes, said method comprising providing to said mammal the composition of claim 24, in an amount and for a time sufficient to treat said diabetes in said mammal.

39. (Withdrawn) The method of claim 38, wherein said mammal is human.
40. (Withdrawn) The method of claim 39, wherein said mammal is human with a familial history of diabetes.
41. (Withdrawn) A method for preventing Type I diabetes in a human suspected of having, or at risk for developing Type I diabetes, said method comprising prophylactically administering to said human the composition of claim 24, in an amount and for a time sufficient to prevent said Type I diabetes from developing in said human.
42. (Withdrawn) A method for reducing the rate of disease progression of Type I diabetes in a human diagnosed with Type I diabetes, said method comprising administering to said human the composition of claim 24, in an amount and for a time sufficient to reduce the rate of disease progression of said Type I diabetes in said human.
- 43.-45. (Canceled)
46. (Currently Amended) ~~An~~The adeno-associated viral vector of claim 1, comprising at least a first polynucleotide that comprises a mammalian β -actin promoter operably positioned upstream of an isolated nucleic acid segment that encodes a biologically-active ~~mammalian~~human interleukin polypeptide comprising: (a) the sequence of SEQ ID NO:1 (IL-10) or (b) the sequence of SEQ ID NO:31 in which the isoleucine at amino acid 87 is replaced by an alanine (IL-10 I87A); wherein said promoter expresses said nucleic acid

segment in a mammalian cell that comprises said vector to produce said encoded ~~mammalian interleukin~~human IL-10 or IL-10 I87A polypeptide.

47. (Currently Amended) The adeno-associated viral vector of claim 46, ~~wherein said vector further comprises a woodchuck hepatitis virus post-transcriptional regulatory sequence operably linked to said nucleic acid segment~~ comprised within a viral particle.